(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/112348 A1

(51) International Patent Classification[7]: H04L 29/06

(21) International Application Number:
PCT/SE2004/000949

(22) International Filing Date: 15 June 2004 (15.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/479,156 18 June 2003 (18.06.2003) US
60/551,039 9 March 2004 (09.03.2004) US

(71) Applicant *(for all designated States except US)*: **TELEFONAKTIEBOLAGET LM ERICSSON (publ)** [SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **OYAMA, Johnson** [JP/JP]; 3-19-19-701 Higashisuna, Koto-ku, Tokyo 136-74 (JP). **KATO, Ryoji** [JP/JP]; 10-9, Wakamiya-dai, Yokusuka Kanagawa 239-0829 (JP). **RUNE, Johan** [SE/SE]; Terrängvägen 5, S-181 30 Lidingö (SE). **LARSSON, Tony**; Kungsholms Strand 139, 3tr., S-112 48 Stockholm (SE).

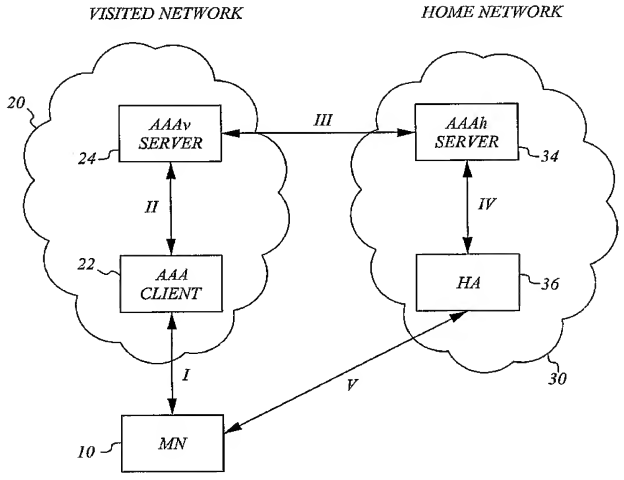
(74) Agent: **AROS PATENT AB**; P.O. Box 1544, S-751 43 Uppsala (SE).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD, SYSTEM AND APPARATUS TO SUPPORT MOBILE IP VERSION 6 SERVICES



(57) Abstract: For establishing a MIPv6 security association between the mobile node (10) roaming in a foreign network (20) and a home agent (36) and for simplifying MIPv6-related configuration, MIPv6-related information is transferred in an end-to-end procedure over an AAA infrastructure by means of an, preferably extended, authentication protocol. A preferred embodiment uses EAP as basis for the extended authentication protocol, creating EAP extensions by incorporating the MIPv6-related information as additional data in the EAP protocol stack, for example as EAP attributes in the EAP method layer of the EAP protocol stack or transferred in a generic container attribute on the EAP layer or the EAP method layer. A major advantage of the proposed MIPv6 authentication/authorization mechanism lies in the fact that it is transparent to the visited domain (20), allowing AAA client (22) and AAAv (24) to act as mere pass-through agents during the procedure.

WO 2004/112348 A1

Declaration under Rule 4.17:
— *of inventorship (Rule 4.17(iv)) for US only*

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.